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PESTS NOT KNOWN TO OCCUR IN THE UNITED STATES OR OF LIMITED
DISTRIBUTION NO. 86: A TORTRICID MOTH

APHIS-PPQ

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Pest

A TORTRICID MOTH
Cydia fabivora (Meyrick)

Combinations

Laspeyresia fabivora Meyrick, 1928

Selected

Laspeyresia leguminus Heinrich, 1943

Synonyms

Eulia prosecta Meyrick, 1932

Order: Family

Lepidoptera: Tortricidae

Economic

Importance

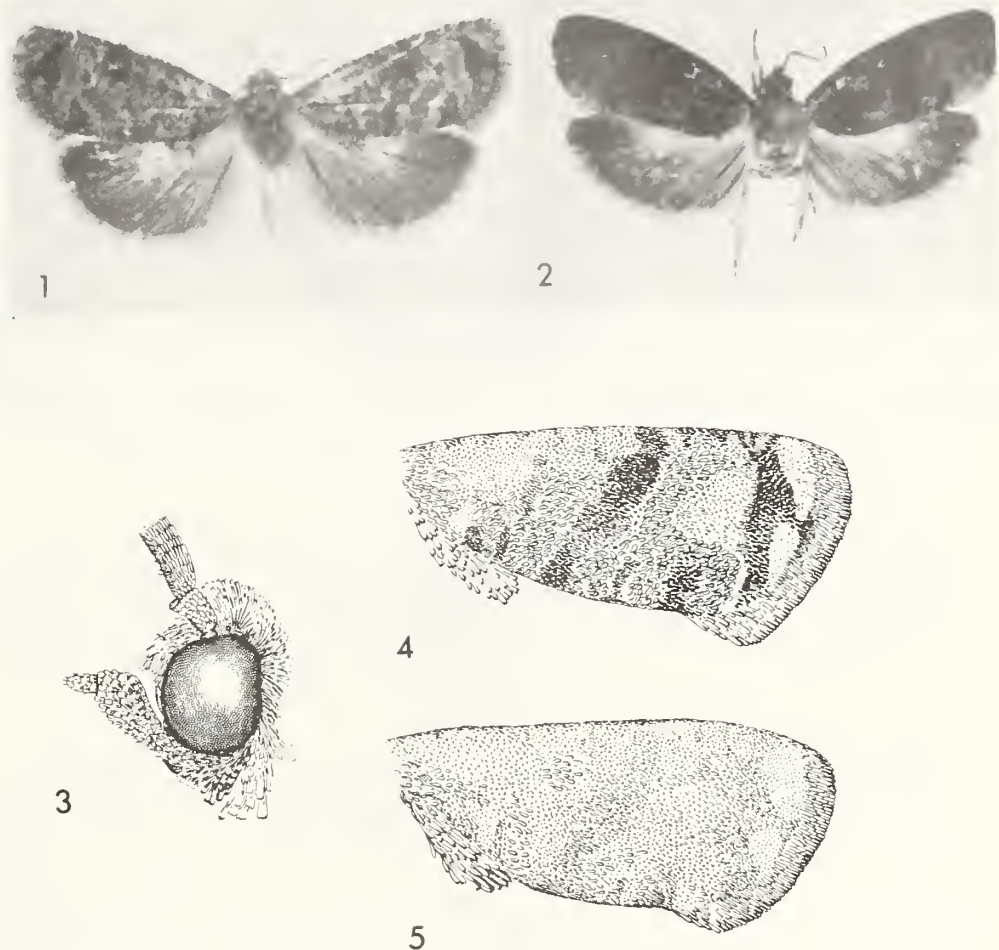
C. fabivora is an important pest of beans in South America
(Foerster 1978). Larvae cause considerable damage by boring
into the stems and pods (Clarke 1958). In Colombia, this
species infests mature pods (Centro Internacional de
Agricultura Tropical 1985).



Cydia fabivora distribution map.

General Distribution	The species is found in Brazil (Foerster 1978), Colombia, Costa Rica (Clarke 1972), Ecuador (Yust 1958), El Salvador, Mexico, Panama, and Peru (Clarke 1972). Adult specimens from Venezuela are deposited in the Collection of the United States National Museum of Natural History, Washington, DC.
Hosts	The species is a pest of leguminous crops. It has been recorded on <u>Glycine max</u> (soybean), <u>Phaseolus lunatus</u> (lima bean), <u>P. vulgaris</u> (string bean), and <u>Vicia faba</u> (broadbean) (Clarke 1972, Foerster 1978).
Characters	<p>ADULTS (Fig. 1) - Male: antenna rather stout, somewhat compressed laterally; pubescence very short; scales pale gray to clay color, thicker and more abundant on antennal basal fourth. Labial palpus (Fig. 3) with second segment extended almost to top of face, ashy gray, scales fuscous or pale brown, white tipped; paler on inner side, sometimes reddish or rust-colored suffusion on upper edge of third segment. Head and thorax cinereous, midthorax darker (Heinrich 1943).</p> <p>Male wing expanse 16-20 mm. Forewing (Figs. 4-5) rough scaled, with several small clumps of slightly raised scales between base and outer third, projected fan of scales along inner margin for slight distance from base; general color drab gray, markings, when distinguishable, blackish fuscous (more or less suffused in some specimens and completely in few); subternal spot irregularly shaped, blackish fuscous; subapical bar blackish fuscous, divided at middle, with one arm extended to mid termen, other downward to about M3, in some specimens arms enclosing pale yellowish or orange spot; apical area beyond subapical bar pale, gray, yellowish, or orange; outer third of cell with dark fuscous spot, sometimes extended to costa and inner margin to form dark, transverse fascia; strongly marked specimens with obscure, pale, smooth spot just beyond cell in area between Cul and R4, edged by slightly raised scales; cilia pale drab gray, in some specimens more or less suffused with reddish ochreous. Hindwing grayish brown to brown; cilia paler. Genitalia (Fig. 6): valva with cucullus elongate triangular, inner (lower) margin densely spined; neck incurvation deep. Aedeagus long, slender, curved; cornuti a cluster of short, thin, flattened spines (Heinrich 1943).</p> <p>Female: Essentially like male in color and markings; wing expanse 18-22 mm, antenna more slender, hindwing darker. Genitalia (Fig. 8): ductus bursae sclerotized from about one third of its length from junction with corpus bursa and with small sclerotized collar at middle. Ductus seminalis from</p>

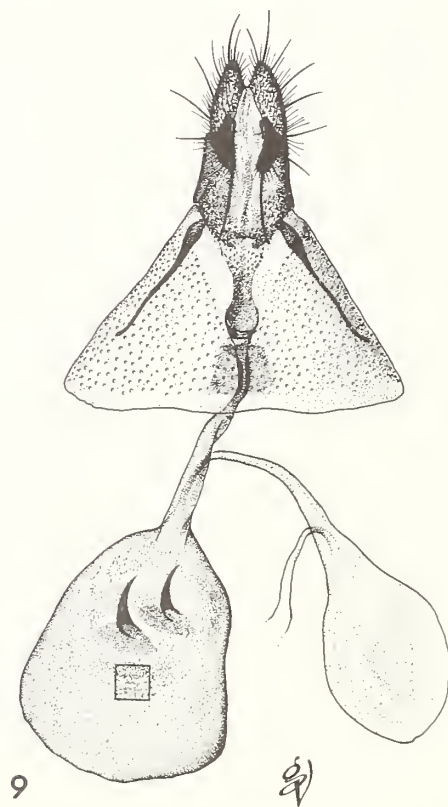
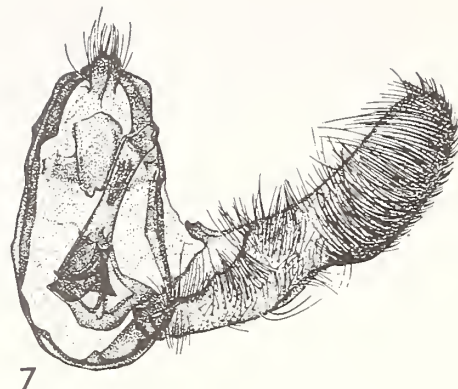
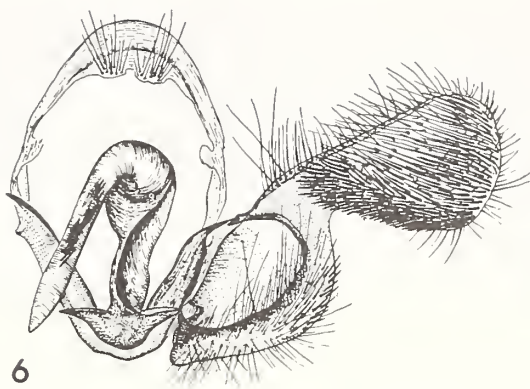
(Figs. 1-5)



Cydia adults. 1-2. Females, dorsal view. 1. C. fabivora. 2. C. torostoma. 3-5. C. fabivora. 3. Male head, lateral view. 4-5. Forewing markings, dorsal view. 4. Strongly contrasted. 5. Suffused (1-2 from Clarke 1972; 3-5 from Heinrich 1943).

ductus bursae just beyond sclerotized part of tube. Bursa weakly granulate, especially toward ductus bursae. Signa slender, sharp, thornlike, with broad bases. Membrane behind and caudad of genital opening with pair of elongate, triangular, sclerotized plates (Heinrich 1943).

(Figs. 6-9)



Cydia genitalia. 6-7. Male, with one valva omitted.
 6. *C. fabivora*. 7. *C. torostoma*. 8-9. Female. 8. *C. fabivora*.
 9. *C. torostoma* (6 and 8 from Heinrich 1943; 7 and 9 from
 Clarke 1972).

Cydia fabivora and another tortricid moth, C. torostoma (Clarke) might easily be confused. C. torostoma (Fig. 2) averages a little smaller than C. fabivora (Fig. 1). Forewing of C. torostoma has a darker ground color and lacks a light gray, yellowish or orange apical spot. Also hindwing base of C. torostoma is light colored, that of C. fabivora, wholly dark. In male genitalia, the incurvation of valva is shallow and the aedeagus is straight in C. torostoma (Fig. 7), but in C. fabivora (Fig. 6), the incurvation is deep and the aedeagus is bent. Female genitalia of C. torostoma (Fig. 9) has a well-sclerotized antrum and a sclerotized Y-shaped lamella postvaginalis; in C. fabivora (Fig. 8), the antrum is not sclerotized and the lamella postvaginalis consists of two elongate, sclerotized divergent areas (Clarke 1972).

No literature available for eggs, larvae, or pupae.

Characteristic
Damage

The terminal shoots of hosts are damaged. Severely damaged plants may become stunted with few pods produced. Late-planted soybeans seem to withstand less damage than earlier planted crops (Foerster 1978.)

Detection
Notes

C. fabivora may enter a country inside the stems, pods, shoots, and buds of its hosts. PPQ would require quarantine action under Title 7, Part 319.56, of the Code of Federal Regulations if these hosts were infested with this pest.

Specimens identified as C. fabivora have been intercepted from Phaseolus spp. three times and Vicia faba (seeds) once since 1975. Interceptions from the Dominican Republic and Honduras, countries which are not cited in the literature, may represent transshipments from other areas. Specimens identified as Cydia sp. or species of Tortricidae from various locations may have also been this pest.

This species may be detected in the following ways.

1. Inspect for eggs on the pods.
2. Cut suspect stems, pods, shoots, and buds and examine for larvae and pupae.

For identification, submit suspect adult specimens, pinned and labeled. Preserve larvae and pupae in alcohol.

Biology

Eggs are deposited on host pods. Young larvae bore in and feed on seeds. They pass from one shoot to another as new shoots are formed. Later, larvae move into the flower buds and from the buds they bore into the axils. The larva pupates in the pod (Foerster 1978). No other information on biology is available.

Literature Cited

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